

AMENDMENTS TO THE CLAIMS

Claims 1-14 (Canceled)

15. (New) Probe head for NMR measurements in a magnetic system, comprising a bore extending in parallel with a base magnetic field for receiving the probe head, wherein the probe head includes a support body carrying at least one solenoid coil as measuring coil, a feed line towards the solenoid coil via which a sample material can be introduced into a measuring volume surrounded by said solenoid coil, wherein said feed line is configured for receiving and conveying sample containers through said measuring volume.

16. (New) Probe head according to claim 15, wherein said at least one solenoid coil is detachably connected to said support body.

17. (New) Probe head according to claim 16, wherein said support body and said at least one solenoid coil are detachably connected by a plug-and-socket connector.

18. (New) Probe head according to claim 15, wherein said feed line is configured for receiving a plurality of sample containers disposed in succession.

19. (New) Probe head according to claim 15, wherein said feed line is connected to a conveying mechanism that

permits stepwise conveyance of said sample containers in said feed line.

20. (New) Probe head according to claim 19, wherein said conveying mechanism provides said conveyance by pressing a propelling agent into said feed line.

21. (New) Probe head according to claim 15, wherein said sample containers are constructed and arranged for complete introduction into said measuring volume.

22. (New) Probe head according to claim 15, wherein said sample containers are constructed and arranged for receiving a maximum sample volume of  $\leq 1$  ml.

23. (New) Probe head according to claim 15, wherein said feed line is passed from a receiving opening of said probe head for said sample containers through said measuring volume to a discharge opening of said probe head for said sample containers.

24. (New) Probe head according to claim 15, wherein said feed line is of a tubular configuration.

25. (New) Probe head according to claim 15, further comprising a plurality of solenoid coils of different size which are connected to said support body in alternation.

26. (New) Method of operating the probe head according to any one of claims 15-25, comprising charging the sample material into a sample container, introducing

said sample container into said feed line and conveying in said feed line in a conveying direction to said measuring volume, and, after measurement, conveying via said feed line along the conveying direction said sample container out of said measuring volume.

27. (New) Method according to claim 26, wherein said sample container is conveyed by a propelling agent in said feed line.

28. (New) Method according to claim 26, wherein a plurality of said sample containers containing same or different sample materials are introduced in succession into said feed line and are subsequently conveyed together in steps in said feed line for measuring each in succession.